	4.10 Reports	DE_SACWIS-002j_4
	4.9 System Design	4.19 Security
	4.8 Requirements Verification	4.18 Support Federal Review
	4.7 System Planning and Analysis	4.17 Post Implementation Support
the Project	4.6 System Hardware	4.16 System Implementation
Bidder's Products, Methodology, and Approach to	4.5 Project Initiation and Management	4.15 Conversion
	4.4 Customer Relations Management Tools	4.14 System Training
	4.3 Technical Requirements	4.13 System Testing
Section 4	4.2 Functional Requirements	4.12 System Development
	4.1 FACTS II Requirements Summary	4.11 Interfaces

4.10 Reports

RFP reference: 6.10 Reports, Page 47

With similar implementations in four other states, Deloitte's solution offers proven reporting capabilities that lead to improved efficiency of administrative processes and the enhancements of program strategy while being incorporated with DSCYF business processes. Deloitte utilizes SAP **Business Objects business intelligence toolset to** implement a state-of-the-art reporting system which is an integral part of our proposed transfer solution - District of Columbia FACES.NET. It provides valuable and dynamic information to a broad group of stakeholders--from front-line case workers to program office policy makers through our common Web-based interface. Through its intuitive business driven design, it enables various divisions, program office users, as well as other stakeholders, to retrieve reports that improve program management and business operations.



- Our proposed transfer solution, DC FACES.NET utilizes Business Objects as reporting tool in District of Columbia as well as the State of Alabama.
- We have implemented the same toolset in Maryland and Tennessee to meet their integrated children services reporting requirements which are similar to your requirements
- We have over 40 years experience working with agencies like DSCYF to

Our proposed Delaware FACTS II reporting solution is

built upon a proven, industry standard business intelligence (BI) platform and is currently in production in District of Columbia, the State of Alabama and other health and human services agencies across the country. The solution is implemented using SAP Business Objects and a separate Oracle Database for reporting which is synchronized daily with the Production database. It provides customizable, out of the box reports to meet the reporting requirements specific to your business needs.

Our proposal to transfer and leverage the production proven Business Objects solution, implemented along with DC FACES.NET in two other jurisdictions, to meet your requirements significantly reduces implementation risk and overall implementation time. The Business Objects reporting toolset is capable to scale, perform and deliver all your integrated children services reporting requirements as listed in the RFP. Using a tool other than SAP Business Objects, such as your existing Oracle suite, will result in new development leading to higher costs and increased implementation time due to the inability to completely leverage the transfer.

Our Information Management practice is a market leader in SAP Business Objects implementations. In addition, we also have a strong working alliance with SAP that we leverage to help accomplish DSCYF vision of One Child, One Team, One Plan. The following list of awards and recognition from SAP as well as independent analysts is a proof of significant value addition that we bring to DSCYF by using SAP Business Objects toolset:

- 2010 SAP Business Objects System Integrator Partner of the Year, North America
- 2010 SAP Quality Award, Gold winner in the category of Large Enterprise Implementations
- 2010 Global SAP Pinnacle Award for Ramp Up
- 2008 Recognized as "Leader" in Gartner North America Business Intelligence/Performance Management Services Magic Quadrant
- 2006 Computer World Laureate for our Johnson & Johnson Enterprise Data Warehouse

Apart from the benefits that we leverage from being a recognized alliance partner, we understand that DSCYF will benefit the most through our experience in implementing such reporting solutions. DC FACES.NET solution, which we propose as a technical and functional foundation for Delaware FACTS II, is not the only jurisdiction where we have implemented Business Objects. When we transferred the solution to the State of Alabama, we again successfully implemented reporting through Business Objects toolset – and its currently being used by a user community that is spread across 60 counties. Following are the details along with sample reports from the District of Columbia and State of Alabama Business Objects implementation.

District of Columbia

DC FACES.NET solution is currently in-production and utilizes SAP Business Objects XI R2 and Oracle 10g database. The solution supports information needs for 140 end-users with approximately 600 reports including management, financial and operational. Reports are delivered to the users through a Web-based application portal and are accessible anytime, anywhere. The application has the capability to perform ad hoc analysis by well-trained power users as well as meet ever-changing information requirements. Following are some sample reports:

Daily Data Report - January 07, 2011 @ 12:49AM				
Investigations (Daily)				
Average Investigator Caseload	6			
Backlog (31-35 Days) (3% of Non-Institutional Abuse Open Investigations)*	12			
Without Extension	9			
With Extension	3			
Delay in receipt of critical information	1			
Unable to identify or locate	1			
Uncooperative client	1			
Backlog (36+ Days) (7% of Non-Institutional Abuse Open Investigations)**	29			
Without Extension	6			
With Extension	23			
Child fatality	1			
Delay in receipt of critical information	4			
Law Enforcement	2			
Out of jurisdiction	5			
Unable to contact client	4			
Unable to identify or locate	3			
Uncooperative client	4			

Figure 4.10-1. The DC FACES.NET Management Statistical Report Showing Caseloads.

Business Objects extracts data from a single consolidated database and generates reports that help management make informed decisions.

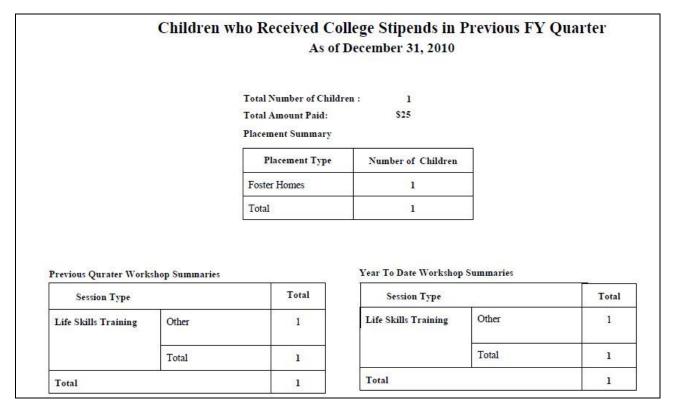


Figure 4.10-2. The DC FACES.NET Financial Report showing children receiving college stipends.

State of Alabama

Alabama Family, Adults and Child Tracking System, AL FACTS, is a transfer of our DC FACES.NET solution. This solution is in production and successfully supports reporting needs of 2200+ users statewide delivering 200 reports at different frequency – daily, monthly, weekly, quarterly and yearly through Business Objects. There are 750 data tables that are part of the information management requirements. The solution supports integrated children services business requirements that are similar to those of DE FACTS II using the same BI toolset that we propose to use for this solution.

Following table provides key features of our approach to your reporting needs and its direct benefits to FACTS II users:

Features of our Approach	Deloitte Approach Benefits DE FACTS II
Immediate Cost Savings	 DC FACES.NET with Business Objects is already operational in two jurisdictions – DC and AL - which prove that its architecture is already refined to support the day to day business needs of DSCYF. It does not need any further investments related to architecture modeling/remodeling. DC FACES.NET reporting solution does not require a grounds-up design and development effort. This in itself is a major cost saver. All the core pieces of a solution – navigation, user interface aesthetics, security model, data access procedures, integration with main FACTS II database model are already in place.
	 Use of industry standard technology such as Business Objects confirms easy availability of staff to maintain it in the long run. Unavailability or shortage of skilled staff could have severe long term impact on cost-effectiveness
	It is backed by a standard development methodology that is used by our award winning team of information management practitioners. It also incorporates lessons learned from more than 16 successful integrated children services implementations. This enables developers to focus on incorporating DSCYF specific features into the solution and not invest time and effort in understanding new or experimental processes thus saving costs in terms of speedier development
Integrated Data Processing	 A central, up to date data repository enhances FACTS II reporting capabilities which can alleviate some of the common data integrity risks associated with individual divisions - Users from all divisions satisfy their reporting needs through a single platform a significant step towards achieving "One Child, One Team, One Plan" approach
Flexible Reporting Strategy	This provides FACTS II users with the most up to date information to support better business decisions.

Features of our Approach	Deloitte Approach Benefits DE FACTS II
Leverages transfer of a proven solution	 Provides readily available, out of the box reports from a federally assessed SACWIS solution
	 Helps meet Information Management requirements of integrated children services program is proven and cost- effective.
	 It is operational in two jurisdictions and is already refined to support the business needs of DSCYF.
	 Reporting architecture is refined and does not need any further investment.
	 Solution is built for all user levels in your organization.
Reduced Impact to Operational System	 Separation of reporting solution from operational system (Delaware FACTS II) confirms flexibility, scalability and extensibility of the reporting system.
	 There is reduced impact of high-volume reporting queries on the operational system improving overall performance and reducing risk.

Table 4.10-1. Features and Benefits of Deloitte's Approach to the DE FACTS Project.

8.10.0 Proposed Reporting Environment

RFP reference: 6.10 Reports, Page 47

In describing their approach to reporting, Bidders should identify:

- Recommendations for the frequency of replicating the production database for report data;
- Approach to replicating the entire database or specific segments;
- Solutions for managing individual divisions' unique reporting requirements in an integrated environment;
- The "user-friendly" features of the Bidder's approach that assist the worker in understanding data from a business perspective;
- A recommended reports preparation training plan;
- Recommendations for reports inventory, change control, and reports maintenance;
- Approach to analyzing the aforementioned reports within the Department's divisions and incorporating them into FACTS II;
- · Recommendations regarding scheduled reports; and,
- Approach to executing reports real-time or via a batch process.

A **robust** and **proven** Information Management and Reporting System is the backbone of an effective decision making solution. Deloitte's capabilities, approach and methodology bring much more than a simple "point solution". We have broad knowledge of reporting and the correct reporting tools needed that we can apply to your situation. We have deep experience with data integration, data modeling, reporting and analytical applications. Our approach looks at the business requirements and processes, as well as the technical requirements and architecture. Our proven methodology provides a framework in which to execute an initiative in a timely manner, with relevant deliverables. These elements allow Deloitte the ability to present you with a complete solution to address your reporting needs.

After evaluating the reporting requirements as stated in the Request for Proposal (RFP), Deloitte proposes an implementation of SAP Business Objects Enterprise based reporting application with Oracle 11g as the reporting database store. Users will access reports in the FACTS II solution from the SAP Business Objects Info View portal. It is Deloitte's intention to keep the implementation as 'out-of-the-box' as possible to avoid complexity, cost, and risk.

A visual of the overall technical architecture for this reporting environment is illustrated below:

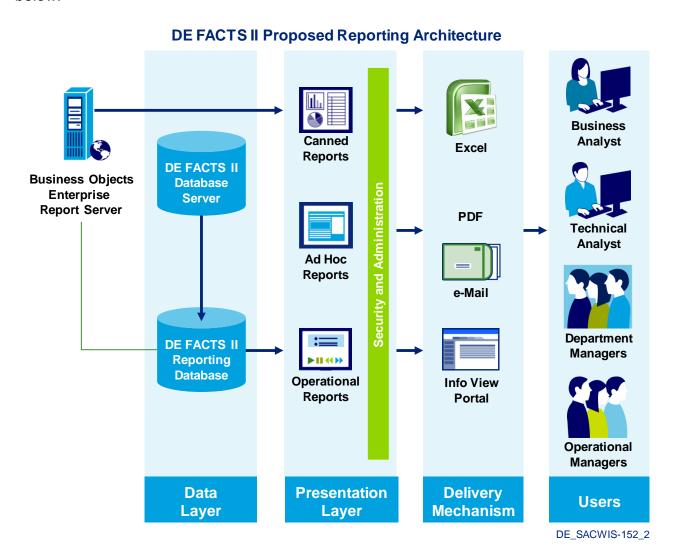


Figure 4.10-3. Delaware FACTS II Proposed Reporting Architecture.

The components of our solution include:

- FACTS II Business Objects Enterprise Premium. Business Objects is the proposed tool of choice to implement within this reporting environment. Business Objects is an industry standard tool in the market and is proven to be successful and needs less time to implement the solution to meet all your reporting needs. Business Objects allows very high interactivity with data allowing users to perform data analysis beyond the specific reporting requirements of the application.
- Business Objects thin client Web Intelligence. Users view the reports using Business Objects Web-based thin client using a web browser. This allows quick addition of users (scalability) as no component installation is required when new users are added to the system.
- Business Objects InfoView portal. Reports are stored on the InfoView portal and organized in different folders based on categorization. InfoView portal is the single place to access all reports published for users and is security controlled requiring user authentication to gain access to the system.
- FACTS II Reporting Database. Oracle 11g based report database server is used to store the reporting data. The data in this server is a replicated copy of the Delaware FACTS II production database server and is refreshed every day for the specific reporting requirements of Delaware FACTS II solution using Oracle Streams.
- FACTS II Source Database. Delaware FACTS II Oracle 11g database server acts
 as the source of the reporting data and is used to source data for the report database
 server.
- Oracle Streams. Oracle Streams is a flexible data replication process which meets a wide variety of information sharing requirements. It enables propagation of data, transactions and events in a data stream either within a database, or from one database to another. Oracle streams allows the users to control what data is put into streams, how it flows, or is routed from one node to another. Oracle streams can address a wide variety of requirements including n-way replication, hub-and-spoke replication and message queuing. Oracle Streams is used to replicate data from the production FACTS II Database server for the Reporting Database. We use the same approach in DC FACES.NET solution and keep it consistent for Delaware FACTS II solution, thus reducing risk.

This approach allows us to provide most up-to-date information for the reporting users without any load on the FACTS II production database server.

We synchronize data at the entity level to ensure that there is a scope for future extensibility of the reporting needs.

An additional driver for an alternate solution and why Business Objects is the feasible choice is based on our understanding of your pain points as stated below. The current Oracle Discover coupled with the multiple MS Access databases is currently unable to meet the new requirements of the reporting solution and solve these current pain points or issues. Our understanding of a few of the pain points is as follows:

- Users spend lot of time to understand the data structures, than analyzing data.
- Usage of access databases means that there is potential for inconsistent data and replication of similar reports across agencies.
- Users need to be trained on SQL skills to be able to product reports.

With the proposed Business Objects based solution, the pain points are addressed and DSCYF will have the following improvements that meet requirements:

- **Single Version of Data.** Both the reporting and production database have the same structure and are normalized. This reduces duplicity and removes inconsistency.
- Central Repository for Reports. There is a single place in the application where users
 access all reports removing any duplicity in the reporting functionality by different
 divisions.
- Easy Interactivity. Business Objects Web Intelligence allows easy interactivity for power users. Users could also query the databased on their needs without the need to use SQL.
- Easy Access to Data. Users access data stored in FACTS II reporting database in a easy and user friendly manner allowing them to spend more time analyzing data than spending time understanding it.
- Multiple Output Formats. Business Objects supports multiple output formats so users can export reports to PDF, MS Excel, MS Word, MS Access – for printing and for further data analysis.
- Secure and User Profile Driven. The overall solution has user level security. Users are able to see content only based on the permissions granted for their role. All users need to go through a secure authentication process to ensure information security.
- Cost Savings. Our reporting solution does not require a grounds-up design and development effort. All the core pieces of a solution – navigation, user interface aesthetics, security model, data access tier, and most importantly, integration with main ASP.NET based solution are already in place.
- Industry Standard Tools. It uses industry standard tool Business Objects which confirms easy availability of staff to maintain it in the long run. Proprietary or unproven technology could have severe long term impact on cost-effectiveness

Furthermore, our proposal to transfer DC FACES.NET solution is feasible to implement as a FACTS II reporting solution because of the following:

- It is a production proven solution, currently being used by two jurisdictions District of Columbia and State of Alabama.
- We have a proven track record of successfully implementing and transferring it.
- We have a good understanding of the business processes related to integrated children services program. Our solution is built around Integrated Case Management functionality and allows users to access data from the single reporting source where all divisions can access to it.
- It uses a technology stack that scales to meet your current as well as future business needs – a must to support your "One Child, One Team, One Plan" vision.

Advantages of Implementing proposed Reporting Environment

Deloitte understands that it is not only important to design a system that meets all your requirements but also equally important to design a system that is user friendly and intuitive to users. In order to achieve the desired result, Deloitte uses its best practices and industry standards based on its extensive experience and expertise in implementing such solutions to develop a system that includes:

- Consistent look and feel. Our proposed solution complies with the overall look and feel
 of the application and provides a consistent user experience for all users. This user
 interface adheres to the standards related to the creation of banners, logos, symbols,
 and layouts. We provide standardized templates through the uses of proven technologies
 such as cascading style sheets (css) to implement Standard templates, images, colors,
 and buttons.
- Semantic layer. Technical to Business translation behind the scenes in Business Objects frees users from the data complexity and avoid potential errors due to a lack of understanding of the data. Business users querying the data are able to use business terminology to gain quick understanding of the data and use it to their advantage and informed decision making. Users do not have to spend time understanding complex technical details of the data and use SQL skills to analyze data.
- Streamlined Access. Business Objects Info View portal is the single place to access all reports and offers friendly user experience and high interactivity over the web. Single point of access to reports also confirms access control and user management. Reports have meaningful names to enable users to quickly understand the purpose of the report.
- **Hyper linking capabilities**. Create contextual hyperlinks from your document to external Web pages or other Web Intelligence reports in your environment.
- **Scheduling.** Provision to schedule generation and delivery of reports.

 Security. FACTS II reporting system is security controlled and the reporting solution inherits the security properties of the overall application to ensure authorized users have access to information on a need basis.

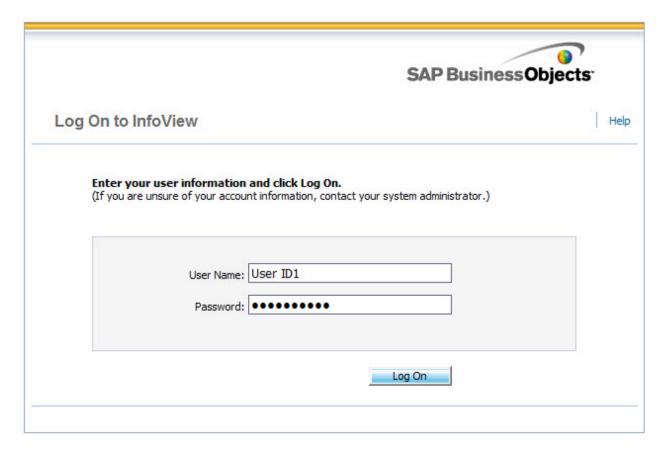


Figure 4.10-4. Business Objects Info View Login Screen.

The platform includes a full complement of access, analysis, and information delivery options, all in one fully integrated Web environment. Each of these components serves different audiences in the organization who have different appetites for the same underlying data, but need to access it in different ways. Since these tools were created for the web browser, they were designed from the grounds up to work the way a Web site works.

Other Successful Implementations

In addition, to District of Columbia and State of Alabama we have experience implementing Business Objects tools to meet reporting requirements for other agencies that are engaged in similar business activities -

 Tennessee FACTS. The BI solution for State of Tennessee also leverages the same reporting toolset – Business Objects and Oracle - that we propose for DE FACTS II solution. It generates 200 reports for users statewide Maryland CHESIE. The BI solution for Maryland also uses Business Objects Enterprise
edition to produce 125 management and statistical reports to serve information needs for
users statewide from a 120GB database that has around 600 data tables which feed
data into the reporting database.

Approach to Implementing Reporting Environment

As part of our solution we propose to use Business Objects Enterprise Premium and Oracle 11g database for Delaware FACTS II solution. We will implement four different environments to support full life cycle of solution.

- **Development Environment**. Is used to build report templates, report documents and perform unit testing. This environment has very limited set of data. Majority of the users in this environment are Business Objects developers.
- **Test Environment**. This environment is used for testing the functionality of the reports with good volume of data and for performance tuning of the reports. System Testers are the major players in this environment.
- Pre-Production Environment. This environment is used by select users to test the
 functionality of the reports before they are deployed in the production environment and
 published to a bigger audience. This environment is a replica of the production
 environment.
- Production Environment. This environment is used to deliver reports to the end-users after the implementation is completed.

All environments proposed in the reporting solution have the same technology stack and toolset – Business Objects XI and Oracle 11g database. Section 4.6, System Hardware describes in detail the Hardware, Operating Environments and Software we propose for the FACTS II solution.

Recommendations for the Frequency of Replicating the Production Database

We recommend replicating FACTS II reporting database on a daily basis to ensure that it has the most up to date data from Production environment. We follow the same approach in District of Columbia and recommend continuing with this proven approach for FACTS II as well. Oracle Streams are employed to perform the replication.

Following are the key benefits of our recommended data replication approach:

- **Up-to-Date Information**. Reports will have the most current data and provide accurate information needed for effective decision making.
- Actionable INFORMATION. This approach confirms that the reporting database and operational database are synchronized daily.

- **Data Transformation.** Customized consumption option in Oracle Streams allows any data transformation that we might need to perform to meet reporting needs.

Approach to Replicating the Entire Database or Specific Segments

We propose that all the tables required for specific reporting needs of FACTS II users be replicated from the FACTS II database into the FACTS II Reporting database. We replicate all columns in a table even if they are not required for the reporting needs at this time. We have been following the same approach successfully for our DC FACES.NET solution providing flexibility to enhance reporting needs that might arise based on the same data set. Since the Reporting Database is in sync with the transactional/operational database, this approach allows all reports – Management, Financial and Operational to be generated from the reporting database itself taking away the load from the transactional system.

Solutions for Managing Individual Divisions' Unique Reporting Requirements in an Integrated Environment

FACTS II Reporting Database integrates data across all divisions into one common database. This architecture allows for department users to have consistent, timely reports across the agency. During requirements phase, we establish **commonality** and **uniqueness** in reporting needs for different divisions. Common requirements will have shared reports across divisions. We also build separate reports for unique reporting requirements of individual divisions, however; all the information still remains accessible from the Business Objects InfoView portal to streamline access to the reports.

Further, each division will have the ability to create reports that are specific to their needs and enable their respective users to customize the look and feel, template of the report. But again - the data still remains consistent across the entire reporting environment.

The "User-Friendly" Features of the Bidder's Approach That Assist the Worker in Understanding Data from a Business Perspective

Our proposed solution has several user-friendly features that make it easier and intuitive for the users to understand. Some of the features are as below:

- Business Friendly Terminology. Data elements are exposed to the end users using business friendly terms that aid quick understanding of the data. Our structured data model helps avoid duplication of calculations in reports.
- **Web Intelligence.** The toolset is user-friendly and has similar look and feel for all types of reports. We use standard templates to develop reports that allow users to get the same experience across entire information management platform.
- InfoView Portal. Users are able to access all reports from a Web-based portal. This allows users to browse through different reports and use the one that meets their needs.

 Folder Structure. We place the reports into separate folder based on their categorization into management, case related, financial and operational to make it easier for users to navigate in the portal and access the reports of their choice. We also provide description of the reports that allows user to gain quick understanding of the purpose of the report.

A Recommended Reports Preparation Training Plan

Users will be trained on using the InfoView portal in FACTS II reporting solution to get the reports that meet their needs. We share knowledge about our solution including - metrics, master data, data model, reports, folder structure and report execution.

In addition, select users will be trained on the overall solution architecture. *Section 4.14, System Training* details our Training approach and methodology.

Recommendations for Reports Inventory, Change Control, and Reports Maintenance

We maintain the production versions of the reports on a version control server. In order to ensure report versions are maintained properly, access to the version control server is permitted only to the change controller of the application. Developers will need to request access to reports that need to be modified based on the change requests. Version control server allows the following:

- Team-based development of reports
- Roll back to previous version
- Comparisons between versions of the same object
- Maintaining different versions of reports
- Version History List of changes, comments, user details and date and time

When change control items are identified in advance of any impact, mutual consideration of the item shall result in one of three dispositions:

- A decision to proceed to implement the change
- A decision to defer implementation of the change (i.e. add to enhancement list)
- A decision not to implement the change

Deloitte will define a change control process in collaboration with the agency. The process will reduce uncertainty and promote a clear understanding of each suggested change prior to the final change agreement.

Approach to Analyzing Reports within the DSCYF and Incorporating Them into Delaware FACTS II

We will analyze the report requirements for all divisions and categorize them by complexity. We will use the following criteria to categorize reports:

- Simple Report
 - 1-5 attributes
 - -1-2 metrics
 - 1-3 prompts
 - Mostly uses data tables to present data
 - Non-Interactive
 - Has just one-static view of the data
- Medium Report
 - -6-10 attributes
 - -3-5 metrics
 - -4-6prompts
 - Use charts and graphs along with data tables
 - Somewhat interactive
- Complex Report
 - 11 or more attributes
 - -6 or more metrics
 - -7 or more prompts
 - Highly interactive
 - Heavy usage of graphics
 - Provides drill-down functionality to detailed reports

Level of Effort required to transfer the reports based on complexity can be determined from the following:

Complexity	Transfer of Report
Simple	16 – 40 hours
Medium	25 - 54 hours
Complex	32 - 72 hours

Table 4.10-2. Effort to Transfer Reports.

Further, we will analyze reports based on their functionality into Management, Financial and Operational reports. This allows us to cater to a set of users in a consistent manner as per their needs.

Recommendations Regarding Scheduled Reports

We understand that DSCYF needs an efficient and flexible report delivery system and this is included in our proposed solution. Time-based scheduling and delivery of reports is accomplished through the Business Objects Report Scheduler. The Business Objects integrated scheduling function provides flexible scheduling capabilities –daily, weekly, monthly, and quarterly schedules.

The Business Objects Scheduler also provides the ability to personalize and deliver content to a group of users. The reporting environment supports integrated scheduling combined with role-based security to allow for scheduled reports to be made available to users in different formats – PDF, Excel, Web-based etc. Users also have the capability to run their reports on demand with the prompt selections as per their needs.

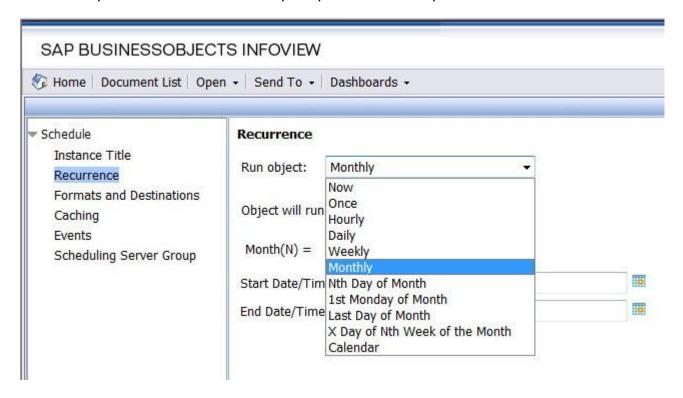


Figure 4.10-5. Business Objects Info View Report Scheduling.

Approach To Executing Reports Real-Time or Via a Batch Process

The Reporting Solution has the capability to produce reports in real-time or via a batch process. The reports requiring data via a batch process are refreshed every day or on a pre-determined frequency with new data and users are able to access the reports from their folders. The real-time reports are provided on-demand from the FACTS II application. Users are able to -

- Create and Save reports into their personal folders within the InfoView portal for future use
- Share reports across users. A common folder is provided where select users can save their reports for other group users to have access to these reports
- View reports in multiple formats (PDF, Excel and Word) as required for offline analysis

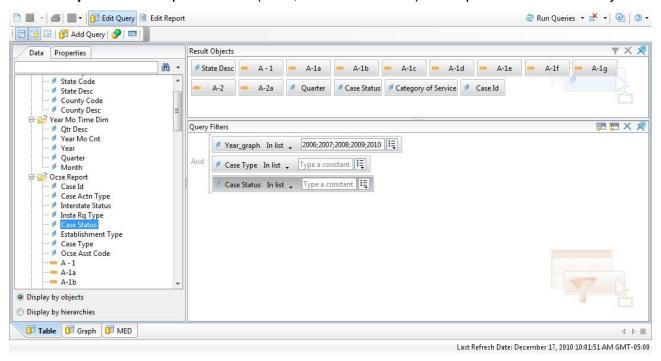


Figure 4.10-6. Sample Business Objects Web Intelligence Screen.

8.10.1 Associated Deliverables

RFP reference: 6.10.1 Associated Deliverables, Page 48

The following deliverables are required for this phase:

- Reports Tool/Methodology Training; and
- Reports Analysis and Reports Design Specifications.

We submit the following deliverables as part of our overall solution:

- Reports Tool/Methodology Training
- Report Analysis and Reports Design Specifications